sis was conducted based on administrative databases from 2 Italian local health units (LHUs), ≈1.6 million beneficiaries. Citizens who were diagnosed with PsA or psoriasis and had a biologic prescription from January 1, 2010, to December 31, 2013 (index date) were included. Patients were classified as biologic-naïve or biologic-established according to previous biologic treatment, and analysed 1 year back to assess resource consumption in the 2 groups. **RESULTS:** According to findings from the 2 LHUs, 86% of biologic-naive patients had previous disease-modifying anti-rheumatic drug (DMARD) prescriptions and 47% had previous topical anti-psoriatic prescriptions. Exposure to DMARDs and anti-psoriatic drugs was lower in biologic-established patients (43% and 33%, respectively). Yearly incidence of disease-related hospitalisations before the index date was 7% in biologic-naive and 13% in biologic-established patients. Biologic-naïve patients had longer average hospital lengths of stay. The average cost of illness in the 12 months before the first biologic prescription (biologic-naïve) was ≈760€, with 530€ for DMARDs, 130€ for anti-psoriatics, and 101€ for inpatient stays. Non-PsA/psoriasis-related costs were 790€, of which 57% were due to hospitalisations. Biologic-established patients' yearly expenditure accounted for 10,410€ for biologic treatment, 265€ for other PsA/psoriasis drugs (168€ DMARDs, 70€ anti-psoriatics, 26€ corticosteroids), and 410€ for hospitalisations. Non-disease-related expenditure was 630€, with >80% due to drug consumption. **CONCLUSIONS:** At the index date, consumption of DMARDs and other anti-psoriatics was lower in biologic-established than biologic-naïve patients (43% vs 86% and 33% vs 47%, respectively), but overall drug expenditure was higher due to biologic acquisition cost (10,410€ vs 760€). Disease-related hospitalisations were higher in biologic-established patients treated the year before the index date (13% vs 7% of biologic-naïve patients).

PSS39

SUGAR FREE GUM: IMPACT ON ORAL HEALTH AND COPAYMENT IN GERMANY

Spyra A

Institute of Empirical Health Economics, Burscheid, Germany

OBJECTIVES: Caries is the most common dental disease in industrial countries. Health expenditures for the treatment of caries were estimated 8.2 billion € in 2012 in Germany. In order to prevent or at least delay progression, many prevention measures have been implemented at different levels. Consumption of sugar free gum (SFG) is one preventive measure at the individual level. The benefit of SFG in caries prevention is proven by numerous studies. The presented study evaluates the cost - effectiveness of SFG from the perspective of the patient based on copayment in Germany. **METHODS:** The development of the current status in dental health care is projected on a time horizon of 62 years. This is compared to a scenario where the consumption of SFG is increased to the Finnish level of consumption. Every tooth can range between the stages "No caries", "1-4 area filling", "Partial crown", "Crown" and "Bridge / Prosthesis / Implant". Transition probabilities were calculated based on the epidemiological data in the DMS IV. The calculation was conducted from the patients´ point of view including costs for copayment. **RESULTS:** An increase in SFG consumption to a Finnish level leads to lifetime costs for caries of 16.882,73 € per patient for copayment. If the SFG consumption stays at its current level, the costs per patient are 23.801,11 €. As a result, in Germany an increase in SFG consumption leads to cost savings of about 7,000 € per patient within 62 years, or annual savings of 111 €. **CONCLUSIONS:** Increasing the consumption of SFG leads to both improvement of oral health and cost savings for the patient.

PSS40

COST-EFFECTIVENESS ANALYSIS OF TOPICAL FILED TREATMENT THERAPIES FOR THE TREATMENT OF ACTINIC KERATOSIS IN GREECE

Athanasakis K[1], Boubouchairopoulou N[1], Tarantilis F[1], Tsiantou V[1], Kontodimas S[2], Kyriopoulos J[1]

[1]*National School of Public Health, Athens, Greece,* [2]*LEO Pharmaceutical Hellas S.A, Athens, Greece*

OBJECTIVES: Actinic keratosis (AK) caused by chronic exposure to ultraviolet radiation, is the most common premalignant dermatological disease in adults over 60. Topical field treatments are effective in clinical and subclinical lesions. There are currently three topical treatment options available in Greece: diclofenac gel (3%), imiquimod (5%) and a recently launched agent: Ingenol mebutate gel (IM). The objective of the present study was to perform a cost-effectiveness analysis of IM vs other topical alternatives for the treatment of AK from a Greek healthcare perspective. **METHODS:** The analysis was conducted via a decision tree in order to calculate the clinical effects and associated costs of AK first-line treatments: IM (2-3 days), diclofenac (3% for 8 or 12 weeks) and imiquimod (5% for 4 or 8 weeks), over a 24-month horizon, divided in 6-month cycles, by considering a hypothetical cohort of immunocompetent adult patients with clinically confirmed AK on the face/scalp or trunk/extremities. Clinical data on the relative efficacy of the different strategies under consideration were obtained from a network meta-analysis, while inputs concerning resource use, reflecting the clinical practice derived from an expert panel. All costs were calculated from a Greek third-party payer perspective. **RESULTS:** IM 0.015% and 0.05% were both cost-effective compared to diclofenac and below a willingness- to-pay threshold of 30,000€/QALY (7.857, and 4.451 €/QALY gained for IM 0.015% compared to diclofenac 2xdaily for 8 and 12 weeks respectively). Comparing IM on face/scalp AK lesions for 3 days versus imiquimod (4 or 8 weeks) resulted in equivalent Results(22.964€ and 787€/QALY gained) while IM use on trunk/extremities was dominant compared to imiquimod four weeks treatment. **CONCLUSIONS:** From a social insurance perspective in Greece, IM 0.015% and IM 0.05% could be the most cost-effective first-line topical filed treatment options in all cases for the treatment of Actinic Keratosis.

PSS41

COST-EFFECTIVENESS OF RANIBIZUMAB VS. DEXAMETHASONE IMPLANT IN DIABETIC MACULAR EDEMA

Cavusoglu Sezen S[1], Dokuyucu O[1], Saylan M[1], Burke C[2], Mahon R[2], Keskinaslan A[3]

[1]*Novartis, Istanbul, Turkey,* [2]*Novartis Global Business Services, Dublin, Ireland,* [3]*Novartis AG, Istanbul, Turkey*

OBJECTIVES: Ranibizumab and dexamethasone intravitrael(DEX) implant are authorised treatments for treatment of DME in Turkey. The objective of this study is to assess the cost-effectiveness of ranibizumab vs. dexamethasone implants in DME treatment with public payer's perspective. **METHODS:** Two studies are used for indirect comparison to calculate the relative efficacy of ranibizumab vs. DEX implant over 12 months with endpoints of BVCA gains:(i)RESTORE comparing ranibizumab vs. laser BVCA gains at month 12 (ii)MEAD comparing DEX implant vs sham injections BVCA gains at month 36. For months 12 to 36, the efficacy inputs are calibrated such that the trajectories of mean BCVA for the two comparators reflect those reported in RESTORE(extension) and MEAD respectively. Conservative transitions probabilities were imposed on the ranibizumab arm, such that mean BCVA sustains the~8 letters gain but no further gain is assumed. These efficacy inputs are then validated by the MAGGIORE head to head study of ranibizumab and DEX implant. MAGGIORE couldn't be used as a primary source of efficacy as the %gains of 10(or15 letters) were not reported. Units of resource use and withdrawal rates are obtained from RESTORE and MEAD. Mean number of yearly injection frequency for ranibizumab was 7.0, 3.9, 2.9 for year 1, year 2 and year 3 respectively;while for DEX implant yearly injection frequency was 2.4 for all three years. Unit costs of resources were obtained by using national fees per service lists and discounted by 3.5% **RESULTS:** Mean BCVA change from baseline at year 3 with ranibizumab arm was 7.2 and with DEX implant arm was 2.5 points. Incremental cost of gaining an extra year without visual impairment by treating with ranibizumab rather than DEX implant is 11.339TL. **CONCLUSIONS:** Although conservative approach was pursued both in terms of efficacy for ranibizumab arm, incremental cost of gaining an extra year without visual impairment by treating with ranibizumab was negligible.

PSS42

COST-EFFECTIVENESS OF SECUKINUMAB COMPARED TO USTEKINUMAB IN PATIENTS WITH PSORIASIS FROM A SWEDISH HEALTH CARE PERSPECTIVE

Costa-Scharplatz M[1], Lang A[1], Gustavsson A[2], Fasth A[1]

[1]*Novartis Sweden AB, Täby, Sweden,* [2]*Quantify Research, Stockholm, Sweden*

OBJECTIVES: To estimate the cost-effectiveness of secukinumab (Cosentyx®) compared with ustekinumab (Stelara®) in patients with moderate to severe plaque psoriasis from a Swedish societal perspective. **METHODS:** A cost-minimization analysis was conducted to estimate the total treatment costs (including drug acquisition, monitoring and indirect costs) of secukinumab versus ustekinumab over periods up to ten years. Indirect costs were measured by estimated work productivity loss in three improvement categories incl. PASI <50, PASI 50-74, PASI>75. Data on PASI responses were based on head-to-head trial (CLEAR). Primary outcomes were total treatment costs over a time horizon of 1-10 years, and total costs per patient achieving PASI75 and PASI90 (achieving clear or almost skin). Sensitivity analysis was performed to test the robustness of the model. **RESULTS:** Secukinumab had higher treatment initiation costs, but lower maintenance costs than ustekinumab. From year 2 onwards, secukinumab was cost-saving compared to ustekinumab. Total treatment costs after 2 years were 338'022SEK and 339'550SEK for secukinumab and ustekinumab respectively, resulting in savings of 1'529SEK. Extending the time period to 10 years resulted in savings of 50'460SEK. Based on the CLEAR study, a significantly higher proportion of patients reached PASI75 and PASI90 with secukinumab vs ustekinumab (93% and 83% PASI75; 79% v 58% PASI90). Considering a 2-year time horizon, the average total cost per patient reaching PASI75 was 363'020SEK for secukinumab compared to 410'647SEK for ustekinumab. Corresponding numbers for PASI90 were 427'648SEK and 589'375SEK. Univariate sensitivity analyses showed that base-case Resultswere robust. **CONCLUSIONS:** From a Swedish societal perspective, secukinumab was estimated to be cost-saving compared with ustekinumab. In addition to the lower total costs from year two onwards secukinumab has shown superior efficacy on PASI improvement and quality of life for patients, and can therefore be considered as the dominant treatment compared to ustekinumab.

PSS43

ADAPALENE 0.1% / BENZOYL PEROXIDE 2.5% + DOXYCYCLINE 200MG IS A LESS EXPENSIVE ALTERNATIVE COMPARED TO ORAL ISOTRETINOIN FOR THE MANAGEMENT OF SEVERE NODULAR ACNE IN SWEDEN

Selya-Hammer C[1], Boval M[1], Patel S[2]

[1]*Amaris UK, London, England,* [2]*Galderma, La Defense, France*

OBJECTIVES: Oral Isotretinoin (OI) is the gold standard for treating severe nodular acne but is associated with a significant adverse events burden. In the 20-week POWER trial, Adapalene 0.1% / Benzoyl Peroxide 2.5% (A/BPO), a topical fixed-dose combination treatment, plus oral antibiotic doxycycline 200mg/day (D+A/BPO) demonstrated a favourable composite efficacy/safety profile compared to OI in severe nodular acne patients. The objective of the present study was to assess the one-year cost-effectiveness of D+A/BPO versus OI. **METHODS:** A Markov model was developed for the Swedish setting based on clinical effectiveness data from the POWER trial and the typical treatment pathway patients experience following treatment failure, discontinuation or relapse. Patients' acne was classified as "controlled" following at least 2-grade improvement in the Investigator's Global Assessment. Health state utility values (HSUV) for controlled and uncontrolled acne were estimated by applying the Swedish tariff to the EuroQOL five dimensions questionnaire responses collected at baseline and study end, although the difference in the two HSUVs was minimal. Adverse events observed in the POWER study were included, with impact on costs and quality of life. **RESULTS:** D+A/BPO treatment was less costly than OI at 17,033 SEK versus 21,185 SEK per patient. Costs Resultsfavoured D+A/BPO due to the lack of costs associated with monitoring when receiving OI as well as lower adverse events treatment costs, combined with lower frequency and cost of physician visits as patients treated with D+A/BPO consult a general practitioner rather than a dermatologist. The total number of Quality-Adjusted Life Years accrued over one year was comparable at 0.9250 for D+A/BPO and 0.9318 for OI. Sensitivity analyses showed that D+A/BPO was no longer less costly when increasing the associated frequency of physician visits or decreasing visits with OI. **CONCLUSIONS:** For severe nodular acne patients, D+A/BPO may be considered an attractive, lower-cost, first-line alternative to OI.